(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 23 June 2005 (23.06.2005)

(10) International Publication Number WO 2005/056731 A1

(51) International Patent Classification7: C10G 67/08. 67/14, 21/08, 47/00, 17/06

(21) International Application Number:

PCT/US2004/040092

- (22) International Filing Date: 1 December 2004 (01.12.2004)
- (25) Filing Language:

(26) Publication Language:

English

(30) Priority Data: 60/527,256

5 December 2003 (05.12.2003)

- (71) Applicant (for all designated States except US): EXXON-MOBIL RESEARCH AND ENGINEERING COM-PANY [US/US]; 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GREANEY, Mark, A. [US/US]; 1265 River Road, Upper Black Eddy, PA 18972 (US). BEGASSE, John, N. [US/US]; 30 Amelia Avenue, Livingston, NJ 07039 (US).
- (74) Agents: HUGHES, Gerard, J. et al.; ExxonMobil Research and Engineering Company, 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR UPGRADING CATALYTIC CRACKING <u>FEEDS BY TREATMENT WITH A SULFURIC ACID SO</u> **LUTION**

(57) Abstract: The present invention relates to the use of an acid treatment method to remove heterocyclic nitrogen-containing compounds from a feedstream and then subjecting the feedstream having a reduced amount of nitrogen-containing compounds to catalytic cracking.